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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/656,834

09/05/2003

Petri Nykanen

915-010.007

8401

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7590

11/04/2009

WARE FRESSOLA VAN DER SLUYS & ADOLPHSON, LLP

BRADFORD GREEN, BUILDING 5

755 MAIN STREET, P O BOX 224

MONROE, CT 06468

EXAMINER

SINKANTARAKORN, PAWARIS

ART UNIT

PAPER NUMBER

2464

MAIL DATE

DELIVERY MODE

11/04/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/656,834

Applicant(s)

NYKANEN ET AL.

Examiner

Pao Sinkantarakom

Art Unit

2464

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 22, 25-28, 32 and 41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 22, 25-28, 32, and 41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/31/2009 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 22, 25, 32, and 41 have been considered but are moot in view of the new ground(s) of rejection.

On page 1 of the Remarks, the Applicants submit that claims 1, 22, 25, 32, and 41 have been amended to recite "a varying public address, the varying of the public address occurring prior to said public address being dynamically allocated," where support for the amendment can be found in the application as filed including at page 1, line 11 through page 3, line 1 and page 13, line 21 – page 14, line 2. Upon careful review of the application including page 1, line 11 through page 3, line 1 and page 13, line 21 – page 14, line 2, the Examiner cannot find the support for the amendment. Regarding page 1 line 11 through page 3 line 1, the application describes a NAT device for replacing a private address used behind a NAT device with a public IP address, where NAT may employ many-to-one mapping or many-to-many mapping in the

translation. The many-to-many mapping replaces a private IP address with a public IP address taken from a pool of public IP addresses in the translation. The amendment "said varying of the public address occurring prior to said public address being dynamically allocated to the wireless terminal" cannot be found at page 1 line 11 through page 3 line 1. Assuming that the amendment is supported by page 1 line 11 through page 3 line 1, this portion is in the Background of the Invention portion of the Specification, which is considered to be Admitted Prior Art and can be used as a prior art reference. Regarding page 13 line 21 – page 14 line 2, the application describes that the IP address of a mobile device is configured to be changed as geographical location of the mobile device changes. The amendment "said varying of the public address occurring prior to said public address being dynamically allocated to the wireless terminal" cannot be found at page 13 line 21 – page 14 line 2.

On pages 2-3 of the Remarks, the Applicants submit that there is no disclosure that a secret host of Wu is a wireless terminal nor that this wireless terminal is also connected to a first wireless communication network with the wireless terminal having a private address in the first wireless communication network. The Examiner respectfully disagrees. Wu discloses the system may be used in a wireless system (see column 4 line 25). Thus, the communication in the network is wireless communication, which makes it reasonable to interpret the secret host and public host as being wireless terminals. Also, the Examiner broadly interprets the first wireless communication network as the network comprising a domain name server and a public host, where two nodes connected to each other and/or communicating with each other forms a network.

Thus, the secret host is connected to the first wireless communication network and the secret host has a private address in the first wireless communication network.

Claim Rejections - 35 USC § 103

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-8, 10-12, 22, 25-28, 32, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al. (USPN 7,039,721) in view of Mehta et al. (Newly Cited US 2003/0028671).

Regarding claims 1, 22, 25, and 32, Wu et al. disclose a system for providing address information for reaching a terminal, the system comprising:

a wireless communication network (see Figure 1 and column 4 line 25, wireless system),

a wireless terminal coupled to the communication network (see Figure 1 secret host 18), the terminal having a private address in the wireless communication network (see column 3 lines 52-55) and being configured to have a varying public address (see column 6 lines 1-6, the secret host sends packets out with the public host IP address, where the public host IP address varies between the public host address and the alternate public host address), and the wireless terminal being configured to be reachable from outside of the wireless communication network by means of the varying public address (see column 5 lines 37-57, directing request to the IP address of the public host and then forwarding all requests to the secret host); and

at least one other communicating party, the at least one other communication party being an originating party of communication between the wireless terminal and the at least one other communication party (see column 5 lines 46-57, the source of the request sends the request to the secret host);

the wireless terminal being configured to dynamically notify substantially directly the at least one other communicating party of a current public address of the terminal

(see column 6 lines 1-25 and column 6 line 62 – column 7 line 4, the secret host sending packets out with the public host IP address and notifying select clients of a public IP address).

Wu et al. also disclose a wireless terminal comprising a processor (see Figure 2 central processor 40), associated memory (see Figure 2 memory 42), and a computer readable medium embodying a computer program executable in the wireless terminal (see Figure 2 storages 44 and 46).

However, Wu et al. do not expressly disclose that the varying of the public address is occurring prior to the public address being dynamically allocated to the wireless terminal.

Mehta et al., from the same or similar fields of endeavor, disclose the varying of the public address is occurring prior to the public address being dynamically allocated to the wireless terminal (see paragraphs 11 and 15, a pool of public IP addresses is maintained by the AMPS and allocated dynamically to wireless network devices as required, where the AMPS maintains a Time to Live (TTL) parameter with each address mapping, the AMPS destroys the mapping after the TTL parameter has expired, and the AMPS creates a new mapping after destroying the expired mapping).

Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to implement the varying of the public address is occurring prior to the public address being dynamically allocated to the wireless terminal as taught by Mehta et al. into the system of Wu et al. in order to insure a greater degree of security (see paragraph 15).

Regarding claims 2 and 26, Wu et al. disclose the method, wherein the notifying comprises dynamically sending an address update request substantially directly to the at least one other communicating party (see column 6 lines 1-25 and column 6 line 62 – column 7 line 4), the address update request comprising a source address and a destination address (see column 6 lines 1-6 and column 6 line 62 – column 7 line 4, sending packets out with the public host IP address so that it appears that all data is coming from the public host and it is inherent that the packets also comprising a destination address in order to route packets to a particular client);

regarding claim 3, the sending an address update request is repeated periodically (see column 6 lines 1-25 and column 6 line 62 – column 7 line 4);

regarding claims 4 and 27, the notifying comprises:
dynamically finding out a public address allocated to the wireless terminal at a given moment for obtaining the current public address of the wireless terminal (see column 5 line 64 – column 6 line 6 and column 6 line 62 – column 7 line 4), and

sending the current public address of the wireless terminal substantially directly to the at least one other communicating party (see column 6 lines 1-6 and column 6 line 62 – column 7 line 4);

regarding claim 5, the sending is conducted if the current public address has changed after the previous sending of the current public address (see column 6 line 62 – column 7 line 4);

regarding claim 6, finding out the current public address comprises querying the public address of the wireless terminal from an external entity capable of seeing the

public address of the wireless terminal (see column 6 lines 19-21, querying the DNS server requesting the IP address of the alternate host);

regarding claim 7, finding out the current public address comprises polling substantially continuously the current public address (see receiving all requests at the secret host from the public host);

regarding claims 8 and 28, further comprises choosing conditionally which other communicating parties are notified of the current public address (see column 6 lines 16-19);

regarding claim 10, further comprises maintaining the current public address in the at least one other communicating party in association with identification information associated with the wireless terminal, so that the address information for reaching the wireless terminal is readily available in the at least one other communicating party by means of the identification for future use (see column 6 lines 1-25 and column 6 line 62 – column 7 line 4);

regarding claim 11, the identification information is a predefined host name (see column 6 lines 1-25 and column 6 line 62 – column 7 line 4);

regarding claim 12, the at least one other communicating party is one of the following: a general-purpose computer (see column 4 lines 26-45).

Regarding claim 41, Wu et al. disclose a communicating party configured to receive address information for reaching another communicating party substantially directly from the another communicating party (see column 6 lines 1-25 and column 6 line 62 – column 7 line 4, the secret host sending packets out with the public host IP

address and notifying select clients of a public IP address, where the client corresponds to the communicating party and the secret host is the another communicating party), the another communicating party being an originating communicating party of communication between the another communicating party and the communicating party (the secret host originates the notifying the select clients of the alternate host IP address), wherein the communicating party is further configured:

to receive an address update request from the another communicating party (see column 6 lines 1-25 and column 6 line 62 – column 7 line 4, receiving the alternate public host IP address from the secret host), and

to use a source address of the address update request as seen by the communicating party as a current public address of the another communicating party (see column 6 lines 1-25 and column 6 line 62 – column 7 line 4, the packets appear to be sent from the public host because of the host IP address),

wherein the another communicating party has a private address in a first wireless network (see column 3 lines 52-55) and a varying public address (see column 6 lines 1-6, the secret host sends packets out with the public host IP address, where the public host IP address varies between the public host address and the alternate public host address), and wherein the another communicating party is reachable from outside of the first wireless communication network by means of the varying public address (see column 5 lines 37-57, directing request to the IP address of the public host and then forwarding all requests to the secret host).

However, Wu et al. do not expressly disclose that the varying of the public address is occurring prior to the public address being dynamically allocated to the wireless terminal.

Mehta et al., from the same or similar fields of endeavor, disclose the varying of the public address is occurring prior to the public address being dynamically allocated to the wireless terminal (see paragraphs 11 and 15, a pool of public IP addresses is maintained by the AMPS and allocated dynamically to wireless network devices as required, where the AMPS maintains a Time to Live (TTL) parameter with each address mapping, the AMPS destroys the mapping after the TTL parameter has expired, and the AMPS creates a new mapping after destroying the expired mapping).

Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to implement the varying of the public address is occurring prior to the public address being dynamically allocated to the wireless terminal as taught by Mehta et al. into the system of Wu et al. in order to insure a greater degree of security (see paragraph 15).

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al. in view of Mehta et al., and in further view of Ebata et al. (Newly Cited US 2002/0173310).

Regarding claim 9, Wu et al. in view of Mehta et al. disclose that the choosing is conducted to whom the current public address shall be available (see column 6 lines 1-25 and column 6 line 62 – column 7 line 4, notifying select clients). Wu et al. do not

explicitly disclose choosing on the basis of predefined profile information. However, Ebata et al. from the same or similar fields of endeavor disclose choosing on the basis of predefined profile information (see paragraph 103, selecting based on the predetermined routing cost).

Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to implement the system for choosing on the basis of predefined profile information as taught by Ebata et al. into the system of Wu et al. in view of Mehta et al. in order to allow greater accuracy selection (see paragraph 103).

Conclusion

8. **Examiner's Note:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

If the Applicant is of the opinion that an interview would help advance prosecution in this case, they are welcome to call the Examiner, Pao Sinkantarakorn, at the number listed below to schedule an interview. The Examiner prefers interview requests be accompanied with a detailed agenda via fax. The Examiner's fax number is (571) 270-2424. The Examiner is willing to consider proposed amendments, clarify rejections, and discuss any other issues that are presented by the applicant's representative. Please note that the Examiner may not be able to accommodate all requests due to scheduling constraints. It is recommended that interview requests be sent with ample time to schedule an interview.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pao Sinkantarakorn whose telephone number is (571) 270-1424. The examiner can normally be reached on Monday-Thursday 9:00am-3:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. S./
Examiner, Art Unit 2464

/Ricky Ngo/
Supervisory Patent Examiner, Art
Unit 2464